

on the gate dielectric 3, 4, a first system of electrodes 17 being etched in said polycrystalline silicon layer. These electrodes are provided with an insulating layer of thermally formed silicon oxide 18. By virtue of the presence of the silicon nitride layer 4, a mask is not necessary to carry out the oxidation process. The whole is subsequently covered with a silicon nitride layer 19. A plan view of the electrodes 17 is shown in Fig. 1.

In the Claims

Claim 1 is amended as follows as indicated in the attached Separate Markup Sheet:

1. (Amended) A method of manufacturing a charge-coupled image sensor, wherein semiconductor regions are formed in a silicon slice so as to adjoin a surface thereof by implantation of ions of dopants and subsequent thermal treatments, wherein the surface of the silicon slice is provided with a gate dielectric comprising a layer of silicon oxide and a silicon nitride layer deposited thereon, and wherein a system of electrodes is formed on the gate dielectric, characterized in that the semiconductor regions are not formed in the silicon slice until after the gate dielectric has been provided on the surface of the silicon slice, the ions of the dopants being implanted through the gate dielectric, and wherein the system of electrodes is formed on the gate dielectric after the formation of the semiconductor regions.